J-PARC (Japan Proton Accelerator Research Complex)

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High Intensity Proton Accelerator Facility aims to pursue frontier science in particle physics, nuclear physics, materials science, life science and nuclear technology, using a new proton accelerator complex at the highest beam power in the world. The facility has been constructed jointly by the High Energy Accelerator Research Organization (KEK) and the Japan Atomic Energy Agency (JAEA). The accelerator complex consists of accelerators as follows; 400 MeV normal-conducting Linac, 600 MeV superconducting Linac to increase the energy from 400 to 600 MeV, 3 GeV rapid cycle synchrotron ring (RCS) providing proton beams at 333 μA, and 50 GeV main ring (MR) providing proton beams at 15 μA. The beam from the RCS is injected to the Materials and Life Science Facility (MLF). Construction of 15 neutron science instruments and 1 muon science instrument have been completed. Additionally, 3 neutron science instruments and 1 muon instrument are under construction.